Hospital Cohort Profile:

ACADEMIC MEDICAL CENTERS

Academic Medical Centers^{tb} (AMCs) are training institutions for medical school residents, like Teaching Hospitals. However, AMCs are characterized by more extensive research and teaching programs, as well as significant capacity for highly specialized and complex care (i.e., tertiary and quaternary). AMCs tend to be the principal teaching hospitals for a medical school, and treat a disproportionate number of complex cases (i.e., high casemix index). AMCs are also large. In 2012, the six Massachusetts AMCs represented more than a quarter of all staffed hospital beds statewide.

INPATIENT SERVICES Compared with other acute hospitals, AMCs as a group treat more high-severity cases. However, nearly three-quarters of cases at AMCs are of low or moderate severity. Relative to their size, AMCs provide disproportionately more newborn and delivery cases (nearly a third of statewide cases), as well as certain other cardiac and abdominal procedures. As a group, AMCs have a significantly higher cost‡ per inpatient case (\$11,513 per CMAD) than other hospitals. Even compared to other teaching hospitals, AMCs' costs are 24% higher.

FINANCIAL PERFORMANCE Total AMC revenue in FY12 was \$10.2 billion. These six hospitals accounted for 40% of total acute hospital revenue statewide. AMCs tend to have a greater proportion of commercial business than other hospitals, but nearly 60% of their business is from Medicaid, Medicare, and other government programs. AMCs tend to have higher price levels relative to other hospitals. While there was some variation between hospitals, AMCs collectively earned a surplus each year from FY08 to FY12, with an aggregate surplus of \$527 million in FY12.

AT A GLANCE

TOTAL STAFFED BEDS: 3,867 in cohort, 26% of Statewide

TOTAL DISCHARGES: 231.506 in cohort. 28% of Statewide

AVERAGE % OCCUPANCY: 84%

TOTAL REVENUE IN FY12: \$10,213 million, 40% of Statewide

AVERAGE PUBLIC PAYER MIX: 59%

AVERAGE CY12 COMMERCIAL PAYER PRICE LEVEL: 77th Percentile

CASE MIX INDEX in FY12: 1.35, greater than CMI of other hospitals* (0.92)

INPATIENT: OUTPATIENT REVENUE in FY12: 48%:52%

MEDIAN TOTAL MARGIN in FY12: 3.6%

SERVICES

What were the most common inpatient cases (DRGs) treated at the cohort hospitals? What proportion of statewide DRGs did this cohort treat for each

service?

Delivery DRGs^{\$\phi\$} (42,547) of statewide discharges were treated at these hospitals in FY12 Heart Failure (3,930) Other Pneumonia (3,458) 17% Septicemia Infections (3,345) 18% Per Cardio procs w/o AMI (3,134) 57% Maj Sml & Lrg Bowel Procs (3,038) 35% Bacterial Skin Infections (2,920) 20%

17%

18%

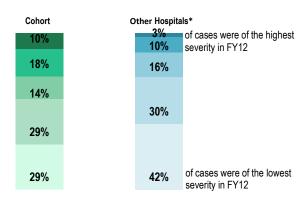
21%

50%

Knee Joint Replacement (2,693) Cardiac Arrhythmia (2,661) Renal Failure (2,543)

- - Cohort (231,506) = 28% of Statewide Discharges

What was the inpatient severity distribution in this cohort? How does this compare to the inpatient severity distribution of other hospitals?

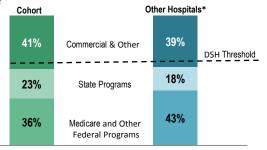


Percentage calculations may not sum to 100% due to rounding

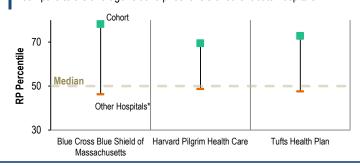
PAYER MIX

100%

What was the average cohort hospital's payer mix (gross charges) in FY12, and how does this compare to the average of other acute hospitals' paver mix?



As a group, what were the cohort's average CY12 payer-specific relative price levels for the top three commercial payers in Massachusetts? How do these compare to the average relative price levels of other acute hospitals?

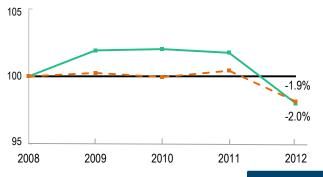


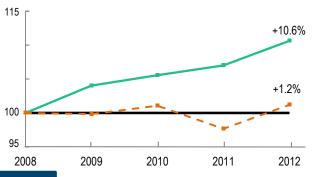
Cohort Other Hospitals

UTILIZATION TRENDS

As a group, how has the volume of the cohort's total inpatient discharges changed compared to FY08, and how does this compare to the volume of other acute hospitals? (FY08=100)

How has the volume of the average cohort hospital's outpatient visits changed compared to FY08, and how does this compare to the average of other hospitals' change in outpatient visits? (FY08=100)

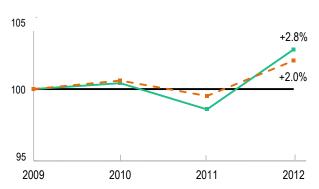


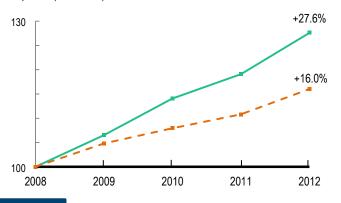


COST TRENDS

As a group, how has the cohort's inpatient cost[‡] per case mix adjusted discharge changed compared to FY09, and how does this compare to those of other acute hospitals? (FY09=100)

As a group, how have the cohort's total outpatient costs changed compared to FY08, and how does this compare to the total outpatient costs of other acute hospitals? (FY08=100)



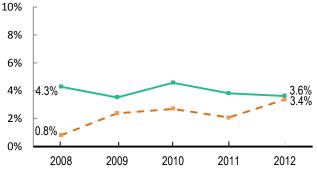


FINANCIAL PERFORMANCE

As a group, how have the cohort hospitals' aggregate revenues and costs changed between FY08 and FY12?

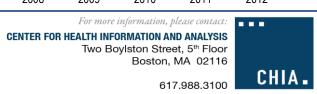
What was the cohort's median total margin between FY08 and FY12? How does this compare to the median of other acute hospitals?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	% Change	Total Cost	% Change	Total Profit/Loss
2008	\$8,484		\$8,149		\$335
2009	\$8,939	5.4%	\$8,630	5.9%	\$309
2010	\$9,483	6.1%	\$9,069	5.1%	\$414
2011	\$9,799	3.3%	\$9,366	3.3%	\$433
2012	\$10,213	4.2%	\$9,687	3.4%	\$526



For descriptions of the metrics, please see Technical Appendix.

- [‡] Costs were adjusted to exclude direct medical education costs and physician compensation.
- * Other hospitals comparative does not include Specialty hospitals.
- * Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.



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^{Hb} Massachusetts AMCs include six hospitals: Beth Israel Deaconess Medical Center, Boston Medical Center, Brigham and Women's Hospital, Massachusetts General